

PATIENT

Puddin Asher

SPECIES

Canine

BREED

Pitbull X

SEX

Intact Male

AGE

7 Years

WEIGHT

46.4 Pounds

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Animal Care Center

REFERRING VET

Dr. Harbord

INVOICE

35946

DATE

12/17/25

PRESENTING CLINICAL SIGNS

History: Clinical Exam Findings: Suspect chronic but unknown hx on pet- pulled from euth list in CA shelter- 7 yr old intact male micro bully with fractured canines- needs dental with extractions and neuter ASAP, BAR, no coughing or exercise intolerance noted, pulses WNL ABNORMAL Labwork Values Total T4 (1.9), Creatinine (.9), HW Test (negative) For ECHO Only: Blood Pressure will obtain at time of echo appointment HR/RR/BP: 122/pant/ BP pending Is there a Heart Murmur? If so, please grade. 4/6 L systolic Findings • Heart: Normal in size with mild right-sided cardiomegaly suspected on the lateral views. VHS: 10.7 (normal for bulldogs: 9.3-16.1; average: 12.7); VLAS: 1.7 (normal: less than 2.3) • Pulmonary vasculature: Symmetrical and normal in size. • Great vessels: Within normal limits. • Upper Airway: Trachea is patent and in a normal position. The mainstem bronchi are within normal limits. • Lungs and Pleura: The pulmonary parenchyma is unremarkable. No pleural effusion. • Mediastinum: No abnormalities noted. • Cranial abdomen: No overt ascites to suggest cardiac dysfunction is seen. The abdominal structures have not been interpreted for other pathologies. COMPARISON STUDY: None available. ASSESSMENT: The reported heart murmur raises the concern for underlying cardiac disease. The thoracic radiographs demonstrate no significant cardiac enlargement and no evidence of pulmonary edema, suggesting that the heart disease is well compensated at this time (stage B1).

Abnormal PE/Chem/CBC/UA Results: Notes to Specialist (if any) pre-screening for anesthesia -- neuter and cohat with extractions ASAP.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	3.49		NM	1.24	54.28	--	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	--	5.0	0.98	21.1	4.1	3.5	1.6

IVSd: 1.42, LVPWD: 1.9

ECG Interpretation

Sinus rhythm with tall r waves.



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Cardiac Presentation

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The mitral valve leaflets are significantly thickened, particularly the anterior mitral valve leaflet, and there is mild mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is normal. There is significant left ventricular concentric hypertrophy, primarily of the posterior wall. Left ventricular diastolic and systolic dimensions are within normal limits, and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size without evidence of tricuspid regurgitation. There is no evidence of pulmonary hypertension based upon the images provided. Subjectively, the right ventricle appears normal in structure and function. The aortic valve appears trileaflet and does not have thickening, however, aortic outflow velocities are significantly increased. There is no aortic insufficiency. The pulmonic valve has normal morphology and corresponding outflow velocities, and there is no insufficiency. I cannot assess for dilated aorta in long axis images; on short axis images, it measures at the upper limits of normal. The pulmonary artery and associated branches are normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Tall r waves
- Degenerative valve disease, stage B-1
- Severe aortic versus subaortic stenosis
- Severe left ventricular concentric hypertrophy

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient's heart murmur and changes are likely due to aortic versus subaortic stenosis. This is a congenital condition, and the patient likely has had it his whole life. He does have degenerative changes to the mitral valve as well.

I would recommend starting atenolol therapy. Typical I recommend starting at a dose of 0.25 mg/kg once daily, then 0.25 mg/kg twice daily, and increasing slowly over the course of 4 days, increasing the dose at an increment of 0.25 mg/kg each dose increase, up until the patient is at 1.0 mg/kg twice daily.

Recommend ensuring the patient is normotensive and an elevated blood pressure is not contributing to the concentric hypertrophy.

The patient can have anesthesia, but given the findings affecting the aortic valve, recommend prophylactic antibiotics 3-5 days prior to elective procedures, i.e., clavamox versus cephalexin, during the procedure, and then 3-5 days post-op. The reason for this is these patients are at an increased risk for complications, such as endocarditis. Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this



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therapy the day of anesthesia.

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Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated. I recommend giving half the dose of atenolol the morning of anesthesia as well.

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A recheck echo is recommended in 6 months, sooner if there are concerns.

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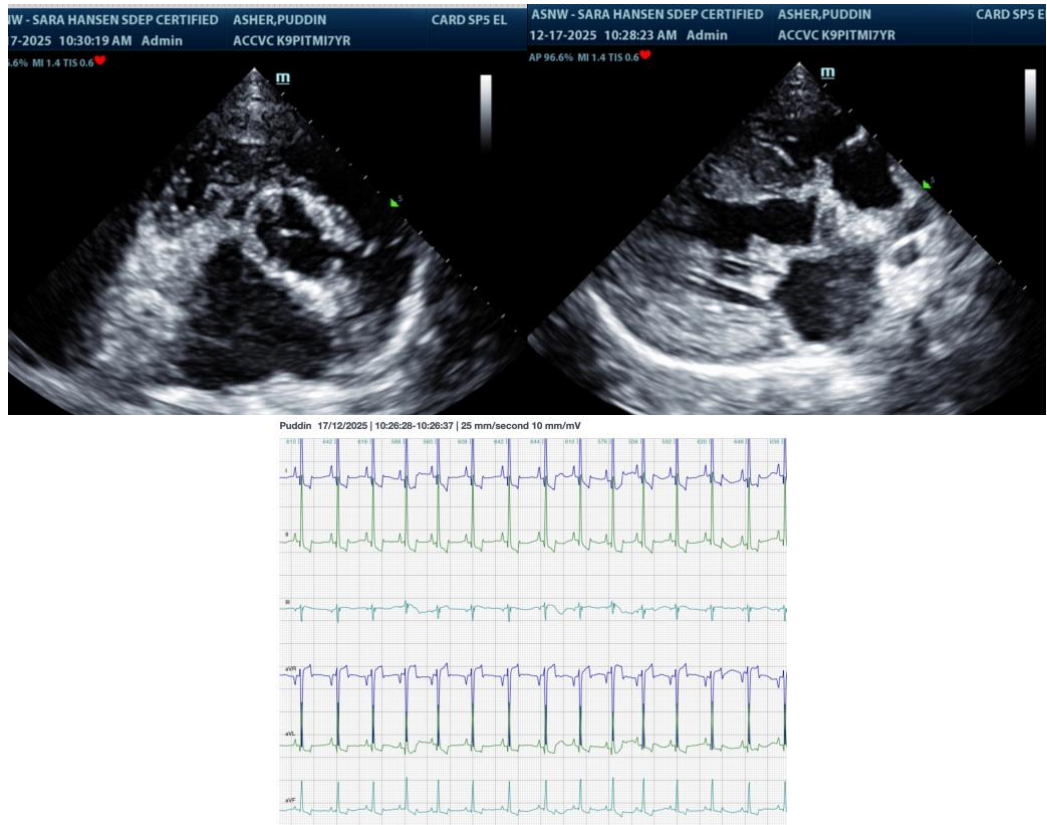
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Sara Brethel DVM, DACVIM (Cardiology)

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